Amendments to the Claims:

Please cancel Claims 2 and 5 without prejudice or disclaimer. Please amend Claims 1, 3-4, 37-40, and 49-51 as set forth below.

1. (Currently amended) A method of increasing locomotor function and/or neuromuscular strength in a mammalian patient with spinal cord contusion injury or motor neuron degeneration, ~~rehabilitation following spinal cord contusion injury or motor neuron degeneration,~~ the method comprising administering to the patient ~~a mammalian patient with spinal cord contusion injury or motor neuron degeneration causing reduction of locomotor function andneuromuscular strength, a therapeutically effective~~ an amount of at least one β_2 adrenergic agonist effective to increase locomotor function and/or neuromuscular strength in the patient, wherein ~~the effective amount of the β_2 adrenergic agonist is from about 0.5 to about 100 μg per kg of body weight~~ the β_2 adrenergic agonist is selected from the group consisting of salmeterol, ractopamine, cimaterol, terbutaline, fenterol, memproterenol, isoprenline, MJ-9184-1, trimetoquinol, tetrahydropapaveroline, soterenol, salmefamol, rimiterol, QH-25, isoetharine, R-804, orciprenaline, quinterenol, sulfonterol, dobutamine, and isoproterenol and salts of the foregoing.

2. (Canceled)

3. (Currently amended) The method of claim 1 wherein the β_2 adrenergic agonist is selected from the group consisting of salmeterol, ractopamine, cimaterol, ~~BRL-47672,~~ terbutaline, fenterol, memproterenol and isoprenline and salts of the foregoing.

4. (Currently amended) A method of increasing locomotor function and/or neuromuscular strength in a mammalian patient with spinal cord contusion injury or motor neuron degeneration, ~~rehabilitation following spinal cord contusion injury or motor neuron degeneration,~~ the method comprising administering to the patient ~~a mammalian patient with spinal cord contusion injury or motor neuron degeneration causing reduction of locomotor function and neuromuscular strength, a therapeutically effective~~ an amount of at least one β_2 adrenergic agonist effective to increase locomotor function and/or neuromuscular strength in the patient, wherein the β_2 adrenergic agonist comprises clenbuterol or a salt thereof ~~and wherein the effective amount of the β_2 adrenergic agonist is from about 0.5 to about 100 μg per kg of body weight~~.

5-7. (Canceled)

8. (Previously presented) The method of claim 41 wherein the effective amount of salbutamol is from about 0.5 to about 1000 μg per kg of body weight.

9. (Canceled)

10. (Previously presented) The method of claim 41, wherein the effective amount of salbutamol is greater than about 0.25 mg/day per kg body weight.

11-36. (Canceled)

37. (Previously presented) A method of increasing locomotor function and/or neuromuscular strength in a mammalian patient with ~~rehabilitation following~~ spinal cord

contusion injury to the lower thoracic spine, the method comprising administering to the patient ~~a mammalian patient with spinal cord contusion injury in the lower thoracic spine causing reduction of locomotor function and neuromuscular strength, a therapeutically effective~~ an amount of at least one β_2 adrenergic agonist effective to increase locomotor function and/or neuromuscular strength in the patient.

38. (Currently amended) The method of claim 37, wherein the β_2 adrenergic agonist is selected from the group consisting of salmeterol, ractopamine, cimaterol, ~~BRL-47672,~~ terbutaline, fenterol, memproterenol, isoprenline, MJ-9184-1, trimetoquinol, tetrahydropapaveroline, soterenol, salmefamol, rimiterol, QH-25, isoetharine, R-804, orciprenaline, quinterenol, sulfonterol, dobutamine, and isoproterenol and salts of the foregoing.

39. (Currently amended) The method of claim 37 wherein the β_2 adrenergic agonist is selected from the group consisting of salmeterol, ractopamine, cimaterol, ~~BRL-47672,~~ terbutaline, fenterol, memproterenol and isoprenline and salts of the foregoing.

40. (Currently amended) A method of increasing locomotor function and/or neuromuscular strength in a mammalian patient with ~~rehabilitation following~~ spinal cord contusion injury to the lower thoracic spine, the method comprising administering to the patient ~~a mammalian patient with spinal cord contusion injury in the lower thoracic spine causing reduction of locomotor function and neuromuscular strength, a therapeutically effective~~ an amount of at least one β_2 adrenergic agonist effective to increase locomotor function and/or neuromuscular strength in the patient, wherein the β_2 adrenergic agonist comprises clenbuterol or a salt thereof.

41. (Previously presented) The method of claim 37 wherein the β_2 adrenergic agonist comprises salbutamol or a salt thereof.

42. (Previously presented) The method of claim 1, wherein the effective amount of the β_2 adrenergic agonist is from about 10 to about 100 μg per kg of body weight.

43. (Previously presented) The method of claim 1, wherein the effective amount of the β_2 adrenergic agonist is about 40 μg per kg of body weight.

44. (Previously presented) The method of claim 37 wherein the effective amount of the β_2 adrenergic agonist is from about 0.5 to about 1000 μg per kg of body weight.

45. (Previously presented) The method of claim 40 wherein the effective amount of clenbuterol is from about 0.5 to about 1000 μg per kg of body weight.

46. (Previously presented) The method of claim 40, wherein the effective amount of clenbuterol is greater than about 0.25 mg/day per kg body weight.

47. (Previously presented) The method of claim 1, wherein the β_2 adrenergic agonist is effective to reduce injury-induced loss of spinal cord tissue.

48. (Previously presented) The method of claim 37, wherein the β_2 adrenergic agonist is effective to reduce injury-induced loss of spinal cord tissue.

49. (Currently amended) ~~A method of rehabilitation following spinal cord contusion injury or motor neuron degeneration, the method comprising administering to a mammalian patient with spinal cord contusion injury or motor neuron degeneration causing reduction of locomotor function and neuromuscular strength, a therapeutically effective amount of at least one β_2 adrenergic agonist to reduce injury induced loss of spinal cord tissue and to increase locomotor function and neuromuscular strength in the patient,~~ The method of claim 4, wherein the effective amount of the β_2 adrenergic agonist is from about 0.5 to about 100 μg per kg of body weight.

50. (Currently amended) ~~A method of rehabilitation following spinal cord contusion injury or motor neuron degeneration, the method comprising administering to a mammalian patient with spinal cord contusion injury or motor neuron degeneration causing reduction of locomotor function and neuromuscular strength, a therapeutically effective amount of at least one β_2 adrenergic agonist to increase locomotor function and neuromuscular strength in the patient,~~ The method of claim 1, wherein the effective amount of the β_2 adrenergic agonist is from about 0.5 to about 100 μg per kg of body weight. ~~, and wherein the β_2 adrenergic agonist is selected from the group consisting of salmeterol, ractopamine, cimaterol, BRL-47672, terbutaline, fenterol, memproterenol, isoprenline, MJ-9184-1, trimetoquinol, tetrahydropapaveroline, soterenol, salmefamol, rimiterol, QH-25, isoetharine, R-804, orciprenaline, quinterenol, sulfonterol, dobutamine, and isoproterenol and salts of the foregoing.~~

51. (Currently amended) A method of increasing locomotor function and neuromuscular strength in a mammalian patient with ~~rehabilitation following~~ spinal cord contusion injury to the lower thoracic spine, the method comprising administering to the

patient ~~a mammalian patient with spinal cord contusion injury in the lower thoracic spine causing reduction of locomotor function and neuromuscular strength, an therapeutically effective~~ an amount of at least one β_2 adrenergic agonist effective to increase locomotor function and neuromuscular strength in the patient, wherein the β_2 adrenergic agonist is selected from the group consisting of salmeterol, ractopamine, cimaterol, ~~BRL-47672,~~ terbutaline, fenterol, memproterenol, isoprenline, MJ-9184-1, trimetoquinol, tetrahydropapaveroline, soterenol, salmefamol, rimiterol, QH-25, isoetharine, R-804, orciprenaline, quinterenol, sulfonterol, dobutamine, clenbuterol, salbutamol and isoproterenol and salts of the foregoing.